

Storm Data and Unusual Weather Phenomena - July 2014

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
ILLINOIS, South				
FRANKLIN COUNTY --- ZEIGLER [37.90, -89.05]				
	07/01/14 15:35 CST		0	Hail (1.00 in)
	07/01/14 15:35 CST		0	Source: Emergency Manager
JACKSON COUNTY --- MURPHYSBORO [37.77, -89.33], CARBONDALE [37.72, -89.22]				
	07/01/14 15:35 CST		3K	Thunderstorm Wind (EG 52 kt)
	07/01/14 15:40 CST		0	Source: Law Enforcement
A few trees were down between Carbondale and Murphysboro.				
UNION COUNTY --- JONESBORO [37.45, -89.27], DONGOLA [37.37, -89.17]				
	07/01/14 16:05 CST		10K	Thunderstorm Wind (EG 61 kt)
	07/01/14 16:25 CST		0	Source: Law Enforcement
Numerous trees were blown down across the county. At Jonesboro, the top of a pine tree landed in a pool.				
JOHNSON COUNTY --- BUNCOMBE [37.47, -88.97]				
	07/01/14 16:25 CST		3K	Thunderstorm Wind (EG 52 kt)
	07/01/14 16:25 CST		0	Source: Law Enforcement
A few trees were blown down.				
POPE COUNTY --- GOLCONDA [37.37, -88.48], 3.0 NNE GOLCONDA [37.41, -88.46]				
	07/01/14 17:00 CST		4K	Thunderstorm Wind (EG 52 kt)
	07/01/14 17:00 CST		0	Source: Law Enforcement
A few trees were down in Golconda, as well as northeast of town.				
Thunderstorms increased in strength and coverage over Missouri as solar heating destabilized the region ahead of the storms. A mid-level shortwave trough moved southeast from the upper Missouri Valley, enhancing thunderstorm development. West-southwesterly deep layer wind shear was sufficient for organized and sustained storms, especially in the presence of strong instability. Mixed layer capes were on the order of 3500 j/kg. The activity evolved into clusters, which then merged into a squall line with locally damaging winds across the Mid-Mississippi and Lower Ohio Valleys.				
WAYNE COUNTY --- KEENESVILLE [38.40, -88.65], 0.6 WSW SIMS [38.37, -88.54]				
	07/07/14 14:45 CST		10K	Thunderstorm Wind (MG 56 kt)
	07/07/14 14:52 CST		0	Source: Trained Spotter
A wind gust to 64 mph was measured with a portable anemometer several miles northwest of Wayne City . West of Fairfield, trees were uprooted and power lines were down in a concentrated area along Illinois Route 15.				
WAYNE COUNTY --- KEENESVILLE [38.40, -88.65]				
	07/07/14 14:55 CST		0	Hail (1.00 in)
	07/07/14 14:55 CST		0	Source: Trained Spotter
WAYNE COUNTY --- FAIRFIELD [38.38, -88.37]				
	07/07/14 15:01 CST		5K	Thunderstorm Wind (EG 52 kt)
	07/07/14 15:01 CST		0	Source: Emergency Manager
Power lines were blown down in the city.				
EDWARDS COUNTY --- ALBION [38.38, -88.05]				
	07/07/14 15:15 CST		60K	Thunderstorm Wind (EG 61 kt)
	07/07/14 15:15 CST		0	Source: Trained Spotter
Numerous trees were blown down in Albion . At least eight trees were blown down on the south side of Albion . The trees ranged from one to three feet in diameter. One tree fell in a pool. Power lines were blown down. A very large tree fell into a home , producing significant damage. Another tree landed on a car.				

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A cluster of thunderstorms developed in a very unstable air mass over east central Missouri and southern Illinois. The storms developed south of a west-southwest to east-northeast oriented boundary, where mixed-layer capes were around 3500 j/kg. Unidirectional westerly flow yielded around 20 knots of deep-layer wind shear, which was sufficient for severe multicells given the strong instability. The storms increased in coverage and intensity as they moved east along the Interstate 64 corridor of southern Illinois. The storms gained sufficient organization to establish a cold pool and associated gust front, which resulted in pockets of wind damage.

ALEXANDER COUNTY --- THEBES [37.22, -89.47], 0.7 SW THEBES JCT [37.19, -89.46], 0.6 S THEBES JCT [37.19, -89.45], 0.5 ESE THEBES [37.22, -89.46]

07/12/14 00:30 CST	0	Flood (due to Heavy Rain)
07/16/14 01:30 CST	0	Source: River/Stream Gage

Minor flooding occurred along the Mississippi River near Thebes. Some low-lying fields and woodlands near the river were inundated.

Very heavy rainfall in the upper Mississippi Valley during the first half of July caused a rise on the Mississippi River that travelled as far south as Cape Girardeau and Thebes. Only minor flooding occurred around mid-month.

WHITE COUNTY --- CARMi [38.08, -88.17]

07/23/14 05:00 CST	0	Heavy Rain
07/23/14 08:30 CST	0	Source: Trained Spotter

A trained spotter measured 1.37 inches of rain in early morning thunderstorms.

EDWARDS COUNTY --- ALBION [38.38, -88.05]

07/23/14 05:45 CST	0	Heavy Rain
07/23/14 08:00 CST	0	Source: Trained Spotter

A trained spotter measured 1.50 inches of rain in 30 minutes. Storm total rainfall was 2.86 inches.

HAMILTON COUNTY --- MC LEANSBORO [38.10, -88.53]

07/23/14 07:15 CST	0	Hail (0.75 in)
07/23/14 07:15 CST	0	Source: Public

JOHNSON COUNTY --- BELKNAP [37.32, -88.93]

07/23/14 10:45 CST	6K	Thunderstorm Wind (EG 56 kt)
07/23/14 10:45 CST	0	Source: Emergency Manager

Several large tree limbs were blown down in a small area about one block wide. One of the large limbs struck a house, causing minor to moderate damage.

A complex of thunderstorms propagated southwestward across southern Illinois. The storms produced heavy rain, gusty winds, and hail up to dime size. The storms were initiated by a cold front that trailed southwest across the Ohio Valley to the Ozark Mountains of northern Arkansas.

(IL-Z090) POPE, (IL-Z091) HARDIN, (IL-Z092) ALEXANDER, (IL-Z093) PULASKI, (IL-Z094) MASSAC

07/27/14 12:00 CST	0	Heat
07/27/14 18:00 CST	0	

Across the Ohio River counties of extreme southern Illinois, the combination of temperatures in the lower to middle 90's and extreme humidity resulted in heat index values in the 105 to 111 degree range. One of the highest afternoon heat index readings included 111 degrees at the Cairo airport. Southwest winds immediately ahead of a cold front approaching the Lower Ohio Valley brought high levels of heat and humidity.

INDIANA, Southwest

VANDERBURGH COUNTY --- 6.0 W EVANSVILLE [37.98, -87.66]

07/01/14 16:20 CST	0	Heavy Rain
07/01/14 18:05 CST	0	Source: Trained Spotter

A trained spotter measured 1.90 inches of rain in one hour and 45 minutes.

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Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
VANDERBURGH COUNTY --- EVANSVILLE [37.98, -87.55]				
	07/01/14 17:00 CST		0	Heavy Rain
	07/01/14 18:00 CST		0	Source: Trained Spotter
A trained spotter measured 1.70 inches of rain in one hour on the southeast side of the city.				
Clusters of thunderstorms merged into a squall line across the Lower Ohio Valley. The storms were enhanced by a mid-level shortwave trough moving southeast from the upper Missouri Valley. Some of the storms produced very heavy rain.				
VANDERBURGH COUNTY --- EVANSVILLE [37.98, -87.55], 3.0 SE EVANSVILLE [37.95, -87.51]				
	07/07/14 16:05 CST		15K	Thunderstorm Wind (EG 52 kt)
	07/07/14 16:05 CST		0	Source: Trained Spotter
Small to medium size tree branches and some power lines were down across the Evansville area. Numerous large tree limbs were blown down on the southeast side of Evansville.				
A cluster of thunderstorms developed in a very unstable air mass over east central Missouri and southern Illinois. The storms developed south of a west-southwest to east-northeast oriented boundary, where mixed-layer capes were around 3500 j/kg. Unidirectional westerly flow yielded around 20 knots of deep-layer wind shear, which was sufficient for severe multicells given the strong instability. The storms increased in coverage and intensity as they moved east along the Interstate 64 corridor of southern Illinois. The storms gained sufficient organization to establish a cold pool and associated gust front, which resulted in pockets of strong winds in southwest Indiana.				
GIBSON COUNTY --- OAKLAND CITY [38.33, -87.35]				
	07/08/14 03:20 CST		3K	Thunderstorm Wind (EG 52 kt)
	07/08/14 03:20 CST		0	Source: Trained Spotter
A large tree limb was blown down. A wooden swing set was destroyed.				
A short line of thunderstorms bowed outward as it moved quickly east across southwest Indiana. The storms occurred along a cold front that trailed south along the Wabash Valley from low pressure near Chicago.				
KENTUCKY, Southwest				
HICKMAN COUNTY --- 2.0 SW CLINTON [36.65, -89.01], 3.0 E CLINTON [36.67, -88.93]				
	07/01/14 17:25 CST		5K	Thunderstorm Wind (EG 56 kt)
	07/01/14 17:30 CST		0	Source: Broadcast Media
Trees were down along Highway 123.				
GRAVES COUNTY --- 2.0 N FANCY FARM [36.83, -88.78], 2.0 ENE FANCY FARM [36.81, -88.75]				
	07/01/14 17:27 CST		8K	Thunderstorm Wind (EG 56 kt)
	07/01/14 17:35 CST		0	Source: Utility Company
A few trees and power lines were blown down in the Fancy Farm area near Highway 121.				
MARSHALL COUNTY --- BREWERS [36.77, -88.43]				
	07/01/14 17:50 CST		10K	Thunderstorm Wind (EG 52 kt)
	07/01/14 17:50 CST		0	Source: Utility Company
A few trees and power lines were blown down.				
Thunderstorms increased in strength and coverage over Missouri as solar heating destabilized the region ahead of the storms. A mid-level shortwave trough moved southeast from the upper Missouri Valley, enhancing thunderstorm development. West-southwesterly deep layer wind shear was sufficient for organized and sustained storms, especially in the presence of strong instability. Mixed layer capes were on the order of 3500 j/kg. The activity evolved into clusters, which then merged into a squall line with locally damaging winds across the Mid-Mississippi and Lower Ohio Valleys.				
HENDERSON COUNTY --- HENDERSON ARPT [37.80, -87.68], 1.0 S HENDERSON [37.82, -87.58]				
	07/07/14 16:10 CST		2K	Thunderstorm Wind (MG 53 kt)
	07/07/14 16:15 CST		0	Source: AWOS

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Four-inch diameter tree limbs were blown down on the south side of Henderson. A wind gust to 61 mph was measured at the Henderson city-county airport. A trained spotter estimated a wind gust to 60 mph in Henderson, where small tree limbs were down.				
HENDERSON COUNTY --- 5.0 ENE HENDERSON [37.86, -87.50]				
	07/07/14 16:15 CST		40K	Thunderstorm Wind (EG 56 kt)
	07/07/14 16:15 CST		0	Source: Trained Spotter
Roof damage occurred to two homes in northeast Henderson County. A two-foot diameter tree was down on one home. The roof was peeled off part of a second home. Numerous smaller trees and power lines were damaged.				

DAVISS COUNTY --- OWENSBORO [37.77, -87.12], 1.2 SSW DOYLE [37.73, -87.08]				
	07/07/14 16:35 CST		30K	Thunderstorm Wind (EG 52 kt)
	07/07/14 16:40 CST		0	Source: Emergency Manager

A large tree fell on a house, tearing a large hole in the wall. Large tree limbs were blown down. One of the limbs was blocking a road. Power lines were down. A utility pole was down across a road.

A cluster of thunderstorms developed in a very unstable air mass over east central Missouri and southern Illinois. The storms developed south of a west-southwest to east-northeast oriented boundary, where mixed-layer capes were around 3500 j/kg. Unidirectional westerly flow yielded around 20 knots of deep-layer wind shear, which was sufficient for severe multicells given the strong instability. The storms increased in coverage and intensity as they moved east along the Interstate 64 corridor of southern Illinois. The storms gained sufficient organization to establish a cold pool and associated gust front, which resulted in pockets of wind damage as it crossed northwest Kentucky.

(KY-Z009) CALLOWAY, (KY-Z012) TRIGG, (KY-Z017) CHRISTIAN, (KY-Z021) MUHLENBERG, (KY-Z022) TODD				
	07/25/14 00:00 CST		0	Drought
	07/31/14 23:59 CST		0	

Drought conditions that had started in central Kentucky earlier in the summer slowly spread west, encompassing parts of western Kentucky by late July. The area of moderate drought conditions extended from Murray to Hopkinsville and Elkton. July monthly rainfall totals were only 25 to 50 percent of normal in the drought area. Impacts of the drought were primarily agricultural. A report from Todd County indicated corn and early-planted soybean yields were projected to be reduced by about 50 percent. The same report from Todd County stated pastures were brown. During the latter half of July, high pressure in the upper levels of the atmosphere controlled much of the central part of the United States. This high produced dry and cool northwest winds over Kentucky for much of the month.

(KY-Z001) FULTON, (KY-Z002) HICKMAN, (KY-Z003) CARLISLE, (KY-Z004) BALLARD, (KY-Z005) MCCracken, (KY-Z006) GRAVES, (KY-Z007) LIVINGSTON, (KY-Z008) MARSHALL, (KY-Z009) CALLOWAY, (KY-Z010) CRITTENDEN, (KY-Z011) LYON, (KY-Z012) TRIGG, (KY-Z013) CALDWELL, (KY-Z014) UNION, (KY-Z015) WEBSTER, (KY-Z016) HOPKINS, (KY-Z017) CHRISTIAN, (KY-Z018) HENDERSON, (KY-Z019) DAVIESS, (KY-Z020) MCLEAN, (KY-Z021) MUHLENBERG, (KY-Z022) TODD				
	07/27/14 12:00 CST		0	Heat
	07/27/14 18:00 CST		0	

The combination of temperatures in the lower to middle 90's and extreme humidity resulted in heat index values in the 105 to 110 degree range. A few afternoon heat index readings included 109 degrees at Paducah and Princeton, and 107 at Madisonville. Southwest winds immediately ahead of a cold front approaching the Lower Ohio Valley brought high levels of heat and humidity.

CHRISTIAN COUNTY --- OAK GROVE [36.67, -87.43]				
	07/27/14 18:50 CST		0	Funnel Cloud
	07/27/14 18:50 CST		0	Source: Storm Chaser

There were two reports of rotation and a funnel cloud, including one from a storm chaser and one from a trained spotter.

TODD COUNTY --- TRENTON [36.72, -87.27]				
	07/27/14 18:50 CST		0	Hail (0.88 in)
	07/27/14 18:50 CST		0	Source: Law Enforcement

A strong storm passed through the southern Pennyriple region.

MISSOURI, Southeast

PERRY COUNTY --- 4.0 WSW PERRYVILLE [37.70, -89.94], 3.1 ESE HIGHLAND [37.65, -89.85]				
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	07/01/14 14:55 CST		30K	Thunderstorm Wind (EG 61 kt)
	07/01/14 15:10 CST		0	Source: Law Enforcement

Trees were blown down in the western part of the county. Three semi tractor-trailers were overturned along Interstate 55 south of Perryville.

PERRY COUNTY --- 2.0 SW PERRYVILLE [37.70, -89.90], HIGHLAND [37.67, -89.90]

07/01/14 15:00 CST	0	Hail (1.75 in)
07/01/14 15:08 CST	0	Source: Public

Some golf-ball size hailstones were observed. The majority of the hail was approximately dime size.

BUTLER COUNTY --- POPLAR BLUFF [36.75, -90.40]

07/01/14 15:55 CST	0	Thunderstorm Wind (MG 52 kt)
07/01/14 15:55 CST	0	Source: Emergency Manager

A wind gust to 60 mph was measured. A tree was blown down.

RIPLEY COUNTY --- 3.0 S DONIPHAN [36.58, -90.82]

07/01/14 16:00 CST	0	Hail (0.75 in)
07/01/14 16:00 CST	0	Source: Trained Spotter

STODDARD COUNTY --- DUDLEY [36.78, -90.10]

07/01/14 16:05 CST	0	Heavy Rain
07/01/14 16:25 CST	0	Source: Trained Spotter

A trained spotter measured 1.04 inches of rain in 20 minutes.

BUTLER COUNTY --- POPLAR BLUFF [36.75, -90.40]

07/01/14 16:15 CST	0	Heavy Rain
07/01/14 17:15 CST	0	Source: Law Enforcement

Water was reported running across U.S. Highway 60/67 in the city of Poplar Bluff.

BUTLER COUNTY --- QULIN [36.60, -90.27]

07/01/14 16:23 CST	5K	Thunderstorm Wind (EG 52 kt)
07/01/14 16:23 CST	0	Source: Emergency Manager

Power lines were down.

STODDARD COUNTY --- BERNIE [36.68, -89.97]

07/01/14 16:34 CST	10K	Thunderstorm Wind (EG 52 kt)
07/01/14 16:34 CST	0	Source: Trained Spotter

A couple of trees were blown down. There was shingle damage to one home. A swing set was blown over and destroyed. A large tree limb was blown down onto a roadway. A trained spotter estimated winds gusted to 60 mph.

NEW MADRID COUNTY --- KEWANEE [36.67, -89.57]

07/01/14 16:55 CST	7K	Thunderstorm Wind (EG 61 kt)
07/01/14 16:55 CST	0	Source: Broadcast Media

Several trees were blown down on the west side of this small community.

Thunderstorms increased in strength and coverage over Missouri as solar heating destabilized the region ahead of the storms. A mid-level shortwave trough moved southeast from the upper Missouri Valley, enhancing thunderstorm development. West-southwesterly deep layer wind shear was sufficient for organized and sustained storms, especially in the presence of strong instability. Mixed layer capes were on the order of 3500 j/kg. The activity evolved into clusters, which then merged into a squall line with locally damaging winds across the Mid-Mississippi and Lower Ohio Valleys. Some of the storms produced torrential rainfall, estimated up to 2 inches per hour.

CAPE GIRARDEAU COUNTY --- GULF JCT [37.27, -89.55], 1.6 SSE CAPE GIRARDEAU [37.28, -89.52], 4.3 ESE GULF JCT [37.25, -89.48], 4.6 ESE GULF JCT [37.23, -89.48]

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Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
	07/08/14 16:30 CST		3K	Flood (due to Heavy Rain)
	07/19/14 05:00 CST		0	Source: River/Stream Gage

Minor flooding occurred along the Mississippi River near Cape Girardeau. Some low-lying fields and woodlands near the river were inundated. River access facilities such as boat ramps and parks were underwater.

Very heavy rainfall in the upper Mississippi Valley during the first half of July caused a rise on the Mississippi River that travelled as far south as Cape Girardeau and Thebes. Only minor flooding occurred around mid-month.

CAPE GIRARDEAU COUNTY --- CAPE GIRARDEAU [37.30, -89.53]

07/23/14 11:00 CST	5K	Thunderstorm Wind (EG 52 kt)
07/23/14 11:00 CST	0	Source: Unknown

Numerous tree limbs were blown down across the city of Cape Girardeau. One large tree was down.

STODDARD COUNTY --- PAXICO [36.95, -90.17], DEXTER [36.80, -89.95]

07/23/14 11:30 CST	30K	Thunderstorm Wind (EG 56 kt)
07/23/14 11:45 CST	0	Source: Emergency Manager

Trees and power lines were blown down across northern and central parts of the county, including Dexter and Puxico.

WAYNE COUNTY --- 5.0 N WAPPAPELLO [37.00, -90.28]

07/23/14 11:40 CST	2K	Thunderstorm Wind (EG 52 kt)
07/23/14 11:40 CST	0	Source: Park/Forest Service

A park employee at Lake Wappapello State Park reported tree damage on the northeast side of the lake.

NEW MADRID COUNTY --- PORTAGEVILLE [36.43, -89.70]

07/23/14 11:48 CST	0	Hail (0.75 in)
07/23/14 11:48 CST	0	Source: County Official

STODDARD COUNTY --- 5.0 W BERNIE [36.68, -90.06], BERNIE [36.68, -89.97]

07/23/14 11:55 CST	15K	Thunderstorm Wind (EG 56 kt)
07/23/14 12:00 CST	0	Source: Trained Spotter

Tree limbs and roofs were damaged in the Bernie area. Medium to large limbs were down on the south side of Bernie. Five miles west of Bernie, tree limbs were down and there were a few roofs with shingles blown off.

BUTLER COUNTY --- POPLAR BLUFF [36.75, -90.40]

07/23/14 12:15 CST	80K	Thunderstorm Wind (EG 61 kt)
07/23/14 12:15 CST	0	Source: Emergency Manager

In Poplar Bluff, trees and power lines were blown down. Two trees landed on cars. A few roofs were damaged in the city.

A complex of thunderstorms propagated southwestward across southeast Missouri, producing isolated to scattered pockets of wind damage. The storms propagated along an instability axis that extended from north central Arkansas into southeast Missouri. The storms were initiated by a cold front that trailed southwest across the Ohio Valley to the Ozark Mountains of northern Arkansas.

(MO-Z108) RIPLEY, (MO-Z109) BUTLER, (MO-Z110) STODDARD, (MO-Z111) SCOTT, (MO-Z112) MISSISSIPPI, (MO-Z114) NEW MADRID

07/27/14 12:00 CST	0	Heat
07/27/14 18:00 CST	0	

Along and south of a line from Doniphan to Poplar Bluff to Cape Girardeau, the combination of temperatures in the lower to middle 90's and extreme humidity resulted in heat index values in the 105 to 110 degree range. Southwest winds immediately ahead of a cold front approaching the Lower Ohio Valley brought high levels of heat and humidity.